

***Salmonella* Outbreaks Among Persons Exposed to Backyard Flocks: A Preventable Public Health Problem**



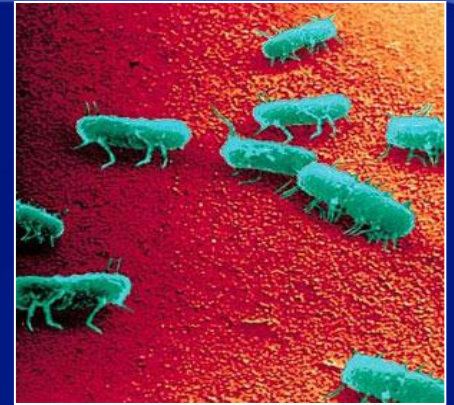
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Division of Foodborne, Waterborne and Environmental Diseases (DFWED)

Salmonella



- **Most common bacterial cause of foodborne disease in the U.S.**
- **Many different sources**
 - Meat, poultry, produce, animal contact
- **>2,500 serotypes**
- **Not all *Salmonella* infections are laboratory-confirmed**
 - 1 laboratory- confirmed = ~29 illnesses not reported

Transmission Between Animals and Humans

❑ Foodborne

- Eating contaminated animal products
 - Meat, milk, eggs, dairy
- Eating food contaminated by animals near growing fields
 - Fruits, vegetables



❑ Direct contact with infected animals

- May appear healthy and clean
- Bodies (fur, feathers, scales) may be contaminated

❑ Indirect contact with animals

- Environment where animals live and roam
- Barriers, tank water



People do not have to touch an animal to catch a zoonotic disease.



Direct Contact

Indirect Contact

Salmonella in People

- **Acute gastroenteritis: fever, diarrhea (can be bloody), abdominal cramps, vomiting**
- **Serious illness: bloodstream infection, brain infection, joint infection**
- **Highest risk: Young children, people with weakened immune systems, seniors >65 years**
- **Hospitalizations and death can occur**

Animals can appear healthy and clean but be carrying germs that can make people sick.



How do we find outbreaks and illnesses?



- ❑ **National molecular subtyping network for enteric disease surveillance**
 - **>85 public health and regulatory laboratories**
- ❑ **Molecular subtyping of disease-causing bacteria**
 - **Pulsed-field gel electrophoresis (PFGE)**
 - **PFGE pattern = molecular fingerprint for each isolate**



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CDC-NPIP Poultry Specific Questionnaire

PulseNet Key: _____

Version: 8/19/2009

Salmonella Typhimurium (PFGE pattern : JPXX01.0302) **Child (<18years) Case Questionnaire**

Notes to Interviewer:

Instructions in *italics* are for the interviewer only. Please do not read italicized words to person being interviewed.

- Please complete as much information as possible.
- Please administer this questionnaire to the patient (or patient's caregiver).
- If the respondent cannot remember exact dates, try and approximate to the 1st or 15th of the month, and mark estimate next to date.
- For all answers that list multiple choices, please read full list and mark all that apply whenever applicable.

(If the case is greater than 2 years and less than 12 years of age, ask a parent or guardian the questions in this section. If the case is between 12 and 17 years of age, you can ask either a parent or guardian or the child (if a parent/guardian gives permission to ask the child).)

PulseNet ID: _____

Phone Number(s): _____

State: _____

County: _____

Sex (circle one): Male Female

Interviewer Name: _____ Interview Date: _____

Hello, My name is _____ (Date _____ Time _____) and I'm calling on behalf of the _____ Department of Health. The reason I'm calling is because we are investigating an outbreak of *Salmonella* infections in your area. You may have already spoken with someone about your child's illness, but as we learn more in our investigation, we have a few more questions about contact with animals for people who got sick. This will take about 15 minutes or less. Any information provided will remain completely confidential. You don't have to answer any question that you don't want to answer, but your answers might help us find the cause of people's illness and prevent other people from getting sick. Are you willing to participate?

(If "NO"... Is there a better time that we could call back? Date _____ Time _____ AM PM

(If STILL "NO"... It should only take about 15 minutes or less and the information you provide could help us find the cause of illness in your area. Date _____ Time _____

(If STILL "NO"... Thank you for your time.

(If Yes, Thank you. I will begin the questions.

SECTION 1 FOR CHILDREN 17 YEARS AND YOUNGER

- Are you the primary caregiver of the child? ☐ Yes ☐ No ☐ Unknown
 - (If yes) What is your relationship to the child? (Mark one)
 - ☐ Mother ☐ Father ☐ Other (specify) _____ (Skip to Section 2)
 - (If no) Is the primary caregiver available to speak to me?
 - (If still no) Do you feel that you are able to answer questions for the primary caregiver regarding your household and your child's activities?
 - (If yes) Great, Thank you.
 - (If no) Is there a better day and time I could call the primary caregiver back?
 - (If yes) Name _____ date: ____/____/____ time ____:____ AM PM
 - (If no) Thank you for your time.

SECTION 2 - INTRODUCTORY QUESTIONS

Now I am going to ask you some general questions about you and your family.

- How many adults 18 years or older live in your home? _____ adults
How many children 17 years or younger live in your home? _____ children 17 years or younger
- Does anyone in your home work in the following jobs: (Read list and mark all that apply.)
 - ☐ Farmer ☐ Postal Worker
 - ☐ Pet/Feed store clerk/manager ☐ Veterinarian/Animal Health worker
 - ☐ Teacher/Day Care Worker ☐ Zoo worker
 - ☐ Health care ☐ Restaurant worker/Caterer

Please fax this form to 404-639-3535 Attn: Anagha Loharikar (email: aloharikar@cdc.gov)

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PulseNet Key: _____

Version: 8/19/2009

State Case ID Number: _____

Interview Date: ____/____/____ Interviewer Name: _____

Salmonella typhimurium (JPXX01.0302) **Poultry Exposure Supplemental Questionnaire**

Notes to Interviewer:

****If respondent (case or control) did not purchase poultry, do not administer this supplemental questionnaire****

If baby poultry purchase, please complete questions 1-4. If only adult poultry purchase, skip to Q5

We are almost finished with the survey. We just have some additional questions regarding the specific types of live poultry you were exposed to. First, I will ask you a couple questions about contact with baby poultry, meaning baby chicks, ducklings, goslings, turkey poults, or other baby poultry.

1. Which types of baby poultry did you (your child) have contact with?					
(Mark all that apply)	How many [POULTRY TYPE] were female and how many poultry were male?				
<input type="checkbox"/> Chicks	Females	#	Males	#	Unknown
<input type="checkbox"/> Ducklings	Females	#	Males	#	Unknown
<input type="checkbox"/> Goslings (geese)	Females	#	Males	#	Unknown
<input type="checkbox"/> Turkey poults	Females	#	Males	#	Unknown
<input type="checkbox"/> Other:	Females	#	Males	#	Unknown

2. (If chick contact occurred, please complete the following.)		
I will read a list of common breeds or types of chickens. Please let me know when I list the breed(s) of chickens that you were in contact with. In some cases, I may ask you for more information on the type of chicken. (Mark all that apply):		
<input type="checkbox"/> Anconas	<input type="checkbox"/> Silkies: Type _____	<input type="checkbox"/> Leghorns: Type _____
<input type="checkbox"/> Araucanas/Americanas	<input type="checkbox"/> Buff Orpingtons	<input type="checkbox"/> Rhode Island Red
<input type="checkbox"/> Bantams	<input type="checkbox"/> Cornish Game Hens	<input type="checkbox"/> White Rocks
<input type="checkbox"/> Barred Rocks	<input type="checkbox"/> Feather Footed Fancies	<input type="checkbox"/> White cochin
<input type="checkbox"/> Black Australorps	<input type="checkbox"/> New Hampshire Reds	<input type="checkbox"/> Other _____
<input type="checkbox"/> Minorcas: Type _____	<input type="checkbox"/> Red Star	<input type="checkbox"/> Other _____
<input type="checkbox"/> Black Star	<input type="checkbox"/> Rhode Island Reds	<input type="checkbox"/> Other _____
<input type="checkbox"/> Brown Egg Layers	<input type="checkbox"/> Silver Laced Wyandottes	<input type="checkbox"/> Other _____
<input type="checkbox"/> Unknown: (If Unknown) Now, I will read you a list of common chicken colors. Please tell me which of the following colors of chickens your household contacted:		
<input type="checkbox"/> Black <input type="checkbox"/> Brown <input type="checkbox"/> Tan <input type="checkbox"/> Gray <input type="checkbox"/> Red <input type="checkbox"/> Yellow <input type="checkbox"/> White <input type="checkbox"/> Multicolored Other: _____		

3. (If ducklings, goslings, turkeys or other baby poultry were contacted, please complete the following.) Please describe the color of each type of [INSERT TYPES OF POULTRY] contacted (Mark all that apply):									
Species	Black	Brown	Tan	Gray	Red	Yellow	White	Multi-colored	Other Colors? (Specify)
<input type="checkbox"/> Ducklings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Goslings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Turkeys	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Other Baby Poultry (Specify)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Were the baby poultry purchased as dyed or colored (meaning an unnatural color to their feathers)?	
<input type="checkbox"/> Yes → What colors (Mark all that apply):	<input type="checkbox"/> Red <input type="checkbox"/> Green <input type="checkbox"/> Blue <input type="checkbox"/> Orange <input type="checkbox"/> White <input type="checkbox"/> Other (Specify) _____
<input type="checkbox"/> No	

Mail-Order Hatchery Industry, United States

- ❑ ~20 mail-order hatcheries supply baby birds
- ❑ >50,000,000 chicks sold annually
- ❑ One hatchery may supply across USA
- ❑ Business is booming due to increased demand
 - Backyard flocks
 - Urban chicken phenomenon
- ❑ Baby poultry
 - Sold at feed stores
 - Ordered through the mail
 - Sold over the internet



Urban Chickens



NPR Blog: Chicken Diapers? Urban Farming Spawns Accessory Lines (May 1, 2013)



<http://www.npr.org/blogs/thesalt/2013/04/30/180135026/chicken-diapers-urban-farming-spawns-accessory-lines>

“Celebrity” Pets





Neiman Marcus Beau Coop Heritage Hen Mini Farm

http://www.neimanmarcus.com/christmasbook/media.jsp?itemId=cat45440759&icid=product_beaucoop



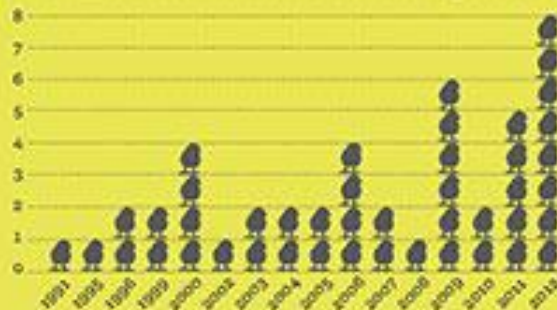
USDA-National Poultry Improvement Plan



- ❑ Established in 1930's to provide program through which new diagnostic technology could be effectively applied to improvement of poultry and poultry products
- ❑ Voluntary partnership between industry and state and federal government
- ❑ Program to eliminate poultry diseases from breeder flocks
 - *Salmonella enterica serotypes* Pullorum , Gallinarium and Enteritidis
 - *Mycoplasma gallisepticum*, *Mycoplasma synoviae*, *Mycoplasma meleagridis*, and Avian Influenza
- ❑ Does not certify freedom from other strains of *Salmonella* in poultry, including those that cause human illness

Since the 1990s,
45 *Salmonella*
outbreaks have been
linked to live poultry.

Number of *Salmonella* Outbreaks per Year



1563

illnesses

221

hospitalizations

5

deaths

CS238230A

Outbreaks of *Salmonella* Associated with Live Poultry

- **Past**

- First outbreak documented in 1955
- Outbreaks in Spring
- Involved young children
- Dyed birds
- Pets



- **Present**

- See multiple outbreaks/year
- Adults and children
- Outbreaks year-round
- Agricultural feed stores
- Backyard flocks, urban chickens



Outbreaks of *Salmonella* Associated with Live Poultry

- ❑ **45 outbreaks reported since 1990**
 - **1,563 laboratory-confirmed illnesses**
 - **221 hospitalizations**
 - **5 deaths**
- ❑ **Poultry appear clean and healthy**
- ❑ **Multiple *Salmonella* serotypes associated**
- ❑ **Multiple outbreak strains linked to single hatcheries**
- ❑ **Recurring hatchery, different outbreak strains**
- ❑ **Success in reducing human illnesses linked to specific hatchery strains**

Success Stories

- ❑ **A couple hatcheries have successfully eliminated certain outbreak strains of *Salmonella* that were repeatedly associated with that specific hatchery**
 - Improved biosecurity
 - Working with vet consultant
 - Routine environmental testing
 - Autogenous vaccines
 - Following NPIP guidance
 - Important to customize to the individual hatchery-unique operations

Summary: 2012 Outbreaks of *Salmonella* Infections Linked to Live Poultry from Mail-Order Hatcheries

Preliminary data, subject to change



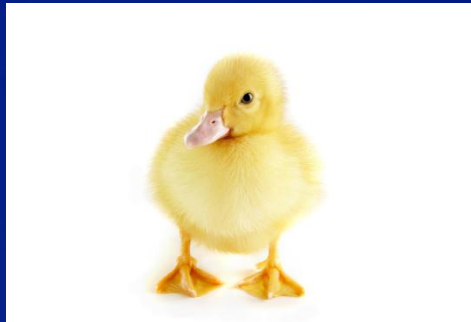
- ❑ **8 outbreaks linked to live poultry**
 - Chicks and ducklings, backyard flocks
 - Multiple *Salmonella* serotypes
 - Median time from purchase to illness* = 15 days (range: 3-90)
 - Multiple serotypes of *Salmonella*: Thompson, Hadar, Montevideo, Infantis/Lille/Newport, Infantis, Muenchen, Braenderup
- ❑ **517 illnesses reported**
 - Outbreak size range: 20 to 195 ill persons
 - 93 (18%) hospitalized
 - 4 deaths, unclear if infection contributed

*information not available for all outbreaks

Highlights from 2012 Outbreak Data (n=148)

Preliminary data, subject to change

- ❑ **73% reported contact with baby poultry**
 - Chicks, ducklings, goslings
- ❑ **67% purchased for eggs; 25% for pets; 2% for meat; 6% for other reasons**
- ❑ **33% kept poultry inside their home**
- ❑ **30% snuggled with poultry; 9% kissed poultry**
- ❑ **91% purchased poultry from a store; 7% through mail**



Highlights from Recent Outbreak Investigations (2006-2012)

- **Caterer contaminated food , caused outbreak in people with no direct live poultry contact (*Salmonella* Montevideo B, 2009)**
 - **Caterer had backyard flock with chicks from mail-order hatchery associated with outbreak strain**
- **Chicken contact leading to a foodborne outbreak associated with infected delicatessen workers (*Salmonella* Montevideo B, 2007)**
- **Poultry flock in daycare cause outbreak (*Salmonella* Johannesburg, 2009)**
- **Death in nursing home resident, chicks from implicated hatchery brought into nursing home (*Salmonella* multiple, 2012)**
- **Feed store employees become cases in outbreaks (2006, 2010)**
- **One sick postal worker who only handled chicks in the mail (*Salmonella* Montevideo A, 2006)**

2013 Ongoing Multistate Outbreaks of Human *Salmonella* Infections Linked to Live Poultry*

*preliminary data, subject to change; as of May 24, 2013

- ❑ 4 outbreaks under investigation to date in 2013
- ❑ 318 illnesses and counting
 - *Salmonella* Typhimurium
 - 198 ill and counting
 - *Salmonella* Infantis/Mbandaka
 - 85 ill and counting
 - *Salmonella* Braenderup
 - 22 ill and counting
 - Same strain as 2012 outbreak
 - *Salmonella* Montevideo
 - 13 ill and counting
 - Same strain linked to chicks as seen in 2007-2010 outbreaks

Challenge to Meet Demands

❑ Outsourcing

- **New flocks – all levels from small scale to commercial operations**
- **Trans-shipping of day old chicks through hatchery**

❑ Drop Shipping

- **Common practice in hatchery industry**
- **Hatchery A can not complete customer order because no birds are available**
- **Hatchery A contacts Hatchery B for availability**
- **Hatchery B ships order to customer under Hatchery A name**
- **Can be challenge for traceback to hatchery**

Prevention and Control

- **Mail-order hatcheries**
- **Feed stores**
- **Consumers**



Potential *Salmonella* Sources



Intervention Strategies at Mail-Order Hatcheries

- **Clean-up efforts should be customized to individual hatcheries**
- **Monthly Environmental Samples**
 - Flocks and hatchery
 - Participate in voluntary US *Salmonella* Monitored Program
- **Autogenous Vaccine**
- **Rodent Control Enhancement**
- **Feed intervention**
- **Hatching Egg Disinfection**
- **Work Flow in Hatchery**
- **Air Movement in Hatchery**
- **Hatchery Cleaning and Disinfection**
- **Consulting with Poultry Veterinarian**

USDA NPIP Proposed Voluntary *Salmonella* Monitoring Program

- **Establishing a U.S. *Salmonella* Monitored program and classification for mail-order hatcheries will allow them to practice a defined program for the prevention and control of *Salmonella***
- **Proposes minimum environmental sampling**
- **Currently waiting for determination of public comment period**

Feed Store Poultry Sales - Past



Recommendations for Feed Stores

- ❑ **While raising backyard poultry can be a great experience, it is important that feed store employees do some simple things to help protect themselves and their customers:**
 - **Circulate educational flyer on safe handling to all customers purchasing live poultry**
 - **Place educational posters near areas where birds are displayed in clear view**
 - **Offer hand washing stations or hand sanitizer next to poultry display areas and tell customers to wash hands right after leaving the poultry display area.**
 - **Display birds out of reach of customers, especially children, so customers can not easily touch birds**
 - **Follow advice in 2011 Compendium of Measures to Prevent Diseases Associated with Animals in Public Settings**

After you touch ducklings or chicks, wash your hands so you don't get sick!



☞ Contact with live poultry (chicks, chickens, ducklings, ducks, geese, and turkeys) can be a source of human illness.

☞ *Salmonella* germs in people that can be threatening.

☞ Chicks, ducklings, and *Salmonella* germs can be found in areas where they live and roam.

☞ *Salmonella* germs can easily contaminate areas where they live and roam.

Protect Yourself and Your Family from Salmonella

DO:

- ☞ Wash your hands thoroughly with soap and water right after touching live poultry or anything in the area where they live and roam.
- ☞ Adults should supervise hand washing for young children.
- ☞ If soap and water are not readily available, use hand sanitizer until you are able to wash your hands thoroughly with soap and water.
- ☞ Clean any equipment or materials associated with raising or caring for live poultry outside the house, such as cages or feed or water containers.

For more information, call 1-800-CDC-INFO or visit www.cdc.gov.



DON'T:

- ☞ Don't let children or elderly persons handle live poultry.
- ☞ Don't let live poultry or especially in a prepared, served outdoor patios.
- ☞ Don't snuggle or eat or drink around live poultry.

Si toca pollitos o patitos, ¡lávese las manos para no enfermarse!



☞ El contacto con aves de corral vivas (como pollitos, gallinas, patitos, patos, gansos y pavos) puede ser una fuente de infección humana.

☞ Las bacterias de *Salmonella* en personas enfermas pueden ser portadoras de graves o incluso la muerte.

☞ Los pollitos, los patitos y los *Salmonella* pueden ser portadores de enfermedades graves o incluso la muerte.

☞ Las bacterias de *Salmonella* pueden contaminar áreas que habitan o frecuentan.

Protéjanse usted y su familia de los microbios

LO QUE DEBE HACER:

- ☞ Lavarse las manos cuidadosamente con agua y jabón inmediatamente después de tocar aves de corral vivas o cualquier objeto ubicado en el área en que habitan o frecuentan.
- ☞ Los adultos deben vigilar que los niños pequeños se laven bien las manos.
- ☞ Si no hay agua ni jabón, use un producto limpiador para manos hasta que se las pueda lavar bien con agua y jabón.
- ☞ Limpie todos los equipos o materiales fuera de la casa que use en el cuidado y crianza de las aves de corral, como las jaulas o los recipientes para agua o alimentos.

Para más información, llame al 1-800-CDC-INFO o visite www.cdc.gov.



LO QUE NO DEBE HACER:

- ☞ No deje que los niños o los ancianos o las personas inmunitariamente debiles toquen a los pollitos o cualquier otra ave de corral.
- ☞ No mantenga aves de corral en los baños y en espacios preparados, sirvan o a como la cocina o los comedores.
- ☞ No abra ni bese a los pollitos o cualquier otra ave de corral.

Lavez vos mains après avoir touché des canetons ou des poussins pour ne pas être malade!



☞ Le contact avec la volaille (poussins, poulets, canetons, canards, oies et dindes) peut devenir une source d'infections à la *salmonelle* pour les humains.

☞ Des microbes de la *salmonelle* peuvent provoquer chez les humains une diarrhée, plus ou moins sérieuse ou même entraîner un risque vital.

☞ Poussins, canetons et autres volailles peuvent être contaminés par des microbes de la *salmonelle* et apparaître propres et en bonne santé.

☞ Des microbes de la *salmonelle* se retrouvent dans leurs déjections et peuvent facilement contaminer leurs corps et leur environnement.

Protégez votre famille et vous-même contre les microbes

À FAIRE:

- ☞ Lavez vos mains avec de l'eau et du savon immédiatement après avoir touché de la volaille ou n'importe quoi dans leur environnement.
- ☞ Un adulte devrait apprendre aux jeunes enfants à se laver les mains.
- ☞ Si l'eau et le savon font défaut, utilisez du gel hydroalcoolique en attendant. Ensuite, lavez-vous bien les mains avec de l'eau et du savon dès que vous le pouvez.
- ☞ Nettoyez tous les équipements ou le matériel utilisés pour élever ou soigner la volaille à l'extérieur: cages ou récipients pour l'eau ou la nourriture, car les uns et les autres peuvent être une source d'infection.

À NE PAS FAIRE:

- ☞ Ne laissez pas les jeunes enfants de moins de 5 ans, les personnes âgées ou les personnes au système immunitaire affaibli toucher ou tenir des poussins, canetons ou autres volailles.
- ☞ Ne laissez pas la volaille entrer dans la maison, dans les salles de bains et surtout dans les endroits où la nourriture ou les rafraîchissements sont préparés, servis ou conservés comme la cuisine ou la terrasse.
- ☞ Ne câlinez pas ni embrassez les oiseaux, ne touchez pas votre bouche, ne mangez pas et ne buvez pas près de la volaille.



FARM SUPPLIES

PLUMBING

FENCING

ON SALE
2.5 GAL
BIG N TOP
39⁹⁹

CHICK DAYS

INFORMATION CENTER

CHICK DAYS

Chicks and Ducks are being sold for agricultural purposes.
Live Chick purchases must be a minimum of 6 birds.
Live Duck purchases must be a minimum of 2 birds.

PLEASE DO NOT CLIMB ON RAILS

PLEASE ASK A TEAM MEMBER FOR ASSISTANCE WITH CHICK OR DUCK PURCHASES



Consumers



What do these two things have in common?



Click here to find out what these 2 things have in **common**.



Gastrointestinal (Enteric) Diseases from Animals

<http://www.cdc.gov/zoonotic/gi/>

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Centers for Disease Control and Prevention

CDC 24/7: Saving Lives. Protecting People.™

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Gastrointestinal (Enteric) Diseases from Animals

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Gastrointestinal (Enteric) Diseases from Animals

Animals provide many benefits to people. However, some animals can carry diseases that can be shared with people. Zoonotic diseases or zoonoses are diseases caused by germs (pathogens) that can be spread between animals and humans. Many germs have been responsible for illnesses and outbreaks, including *Salmonella*, *E. coli* O157:H7, and *Cryptosporidium*. These germs can come from many types of animals, including pets, wild animals, and farm animals. Did you know that infected animals can make you sick, even if they appear healthy and clean?

Zoonotic diseases can cause many different illnesses in people. Gastrointestinal (enteric) zoonoses are one type of illness that can upset the digestive system (stomach and intestines) and can make people sick.

Additional Resources

[Healthy Pets Healthy People](#)

[Reports of Selected *Salmonella* Outbreak Investigations](#)

[Multistate Foodborne Outbreak Investigations](#)

[Compendium of Measures to Prevent Disease Associated with Animals in Public](#)

Outbreaks

Selected Multistate Outbreak Investigations Linked To Animals and Animal Products



Education

Educational Materials and Other Resources



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1600 Clifton Rd
Atlanta, GA 30333


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2012-2013

Selected *Salmonella* Outbreak Investigations

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Salmonella

Salmonella Homepage

- Reporting Timeline
- Complete List of Outbreaks**
- Active Outbreaks
- 2013 Outbreaks
- 2012 Outbreaks
- 2011 Outbreaks
- 2010 Outbreaks
- 2009 through 2006 Outbreaks
- General Information
- Reports & Publications

[Salmonella Homepage](#)

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Reports of Selected *Salmonella* Outbreak Investigations

2013

- [Tahini Sesame Paste](#) – *Salmonella* Montevideo and *Salmonella* Mbandaka
- [Live Poultry](#) – *Salmonella* Typhimurium
- [Live Poultry](#) – *Salmonella* Infantis and *Salmonella* Mbandaka
- [Cucumbers](#) – *Salmonella* Saintpaul
- [Chicken](#) – *Salmonella* Heidelberg
- [Ground Beef](#) – *Salmonella* Typhimurium

2012

- [Peanut Butter](#) – *Salmonella* Bredeney
- [Hedgehogs](#) – *Salmonella* Typhimurium
- [Mangoes](#) – *Salmonella* Braenderup
- [Cantaloupe](#) – *Salmonella* Typhimurium and *Salmonella* Newport
- [Ground Beef](#) – *Salmonella* Enteritidis
- [Live Poultry](#) – *Salmonella* Hadar
- [Live Poultry](#) – *Salmonella* Montevideo
- [Live Poultry](#) – *Salmonella* Infantis, *Salmonella* Newport, and *Salmonella* Lille
- [Dry Dog Food](#) – *Salmonella* Infantis
- [Raw Scraped Ground Tuna Product](#) – *Salmonella* Bareilly and *Salmonella* Nchanga
- [Small Turtles](#) – *Salmonella* Sandiego, *Salmonella* Pomona, and *Salmonella* Poona
- [Restaurant Chain A](#) – *Salmonella* Enteritidis

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- [Division of Foodborne, Waterborne, and Environmental Diseases](#)
- [Foodborne Illness A-Z](#)
- [Estimates of Foodborne Illness](#)
- [Foodsafety.gov](#)
- [Report a Foodborne Illness](#)
- [U.S. Food and Drug Administration \(FDA\)](#)
- [USDA Food Safety and Inspection Service](#)

CDC Feature: Keeping Backyard Poultry

CDC Features - Keeping Backyard Poultry - Windows Internet Explorer

http://www.cdc.gov/Features/SalmonellaPoultry/

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CDC CDC Features - Keeping Backyard Poultry

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Keeping Backyard Poultry



Live poultry, such as chickens, ducks, geese, and turkeys, often carry harmful germs called *Salmonella*. After you touch a bird, or anything in the area where they live and roam, wash your hands so you don't get sick!

An increasing number of people around the country are choosing to keep live poultry, such as chickens or ducks, as part of a greener, healthier lifestyle. While you enjoy the benefits of backyard chickens and other poultry, but it is important to consider the risk of illness, especially for children, which can result from handling live poultry or anything in the area where they live and roam.

It's common for chickens, ducks, and other poultry to carry *Salmonella*, which is a type of germ that naturally lives in the intestines of poultry and many other animals and is shed in their droppings or feces. Even organically fed poultry can have *Salmonella*. While it usually doesn't make the birds sick, *Salmonella* can cause serious illness when it is passed to people.



Salmonella can make people sick with diarrhea, vomiting, fever, and/or abdominal cramps. Sometimes, people can become so sick from a *Salmonella* infection that they have to go to the hospital.

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After you touch ducklings or chicks, wash your hands so you don't get sick!



- ✦ Contact with live poultry (chicks, chickens, ducklings, ducks, geese, and turkeys) can be a source of human *Salmonella* infections.
- ✦ *Salmonella* germs can cause a diarrheal illness in people that can be mild, severe, or even life threatening.
- ✦ Chicks, ducklings, and other live poultry can carry *Salmonella* germs and still appear healthy and clean.
- ✦ *Salmonella* germs are shed in their droppings and can easily contaminate their bodies and anything in areas where birds live and roam.

Protect Yourself and Your Family from Germs

DO:

- ✦ Wash your hands thoroughly with soap and water right after touching live poultry or anything in the area where they live and roam.
- ✦ Adults should supervise hand washing for young children.
- ✦ If soap and water are not readily available, use hand sanitizer until you are able to wash your hands thoroughly with soap and water.
- ✦ Clean any equipment or materials associated with raising or caring for live poultry outside the house, such as cages or feed or water containers.

DON'T:

- ✦ Don't let children younger than 5 years of age, elderly persons, or people with weak immune systems handle or touch chicks, ducklings, or other live poultry.
- ✦ Don't let live poultry inside the house, in bathrooms, or especially in areas where food or drink is prepared, served, or stored, such as kitchens, or outdoor patios.
- ✦ Don't snuggle or kiss the birds, touch your mouth, or eat or drink around live poultry.

For more information, call 1-800-CDC-INFO or visit www.cdc.gov.



Growing Chicks into Healthy Chickens: *Getting Ready for Spring!*



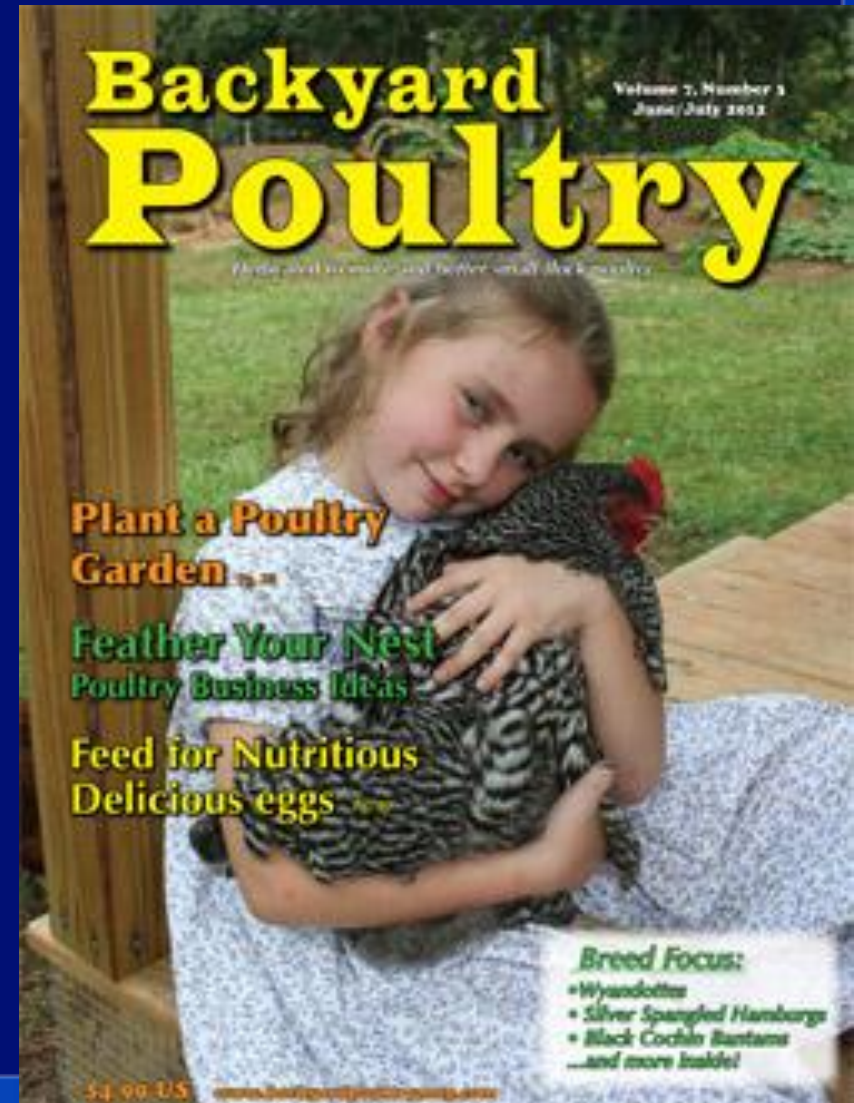
February 28, 2013



United States Department of Agriculture
Animal and Plant Health Inspection Service

Reaching Backyard Flock Owners

- ❑ > 100,000 subscribers
- ❑ Public Service Announcement released in the Oct/Nov 2012 issue



Healthy Chickens Bulletin

>4,000 Subscribers

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Chicks

From: Healthy Chickens Bulletin <newsletters@countrysidemag.com>
To: Barton Behravesh, Casey (CDC/OID/NCEZID)
Cc:
Subject: "Your Healthy Chickens Bulletin"

Sent: Wed 8/1/2012 5:05 PM

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Healthy Chickens Bulletin

Helpful Hints for Healthy Poultry

Healthy Chickens Bulletin

Issue 43
8/1/2012

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Featured Article

Dear Healthy Chickens bulletin readers,
The Centers for Disease Control and Prevention (CDC) has asked us to run a public service announcement regarding the risks associated with handling live poultry and any areas where they live. Like any other animal, poultry can carry Salmonella germs. The purpose of this information is not to scare you out of keeping poultry, but to remind everyone that there is a potential for illness with birds just as there is with any other animal.


Elaine Belanger, Editor, Backyard Poultry

In This Issue

[CDC Public Service Announcement](#)

[Children and Poultry](#)

Tips From the CDC



The Centers for Disease Control and Prevention (CDC) reminds you: Live poultry, such as chickens, ducks, geese, and turkeys, often carry harmful germs called Salmonella. After you touch a bird, or anything in the area where they live and

After you touch ducklings or chicks, wash your hands so you don't get sick!

Contact with live poultry (chicks, chickens, ducklings, ducks, geese, and turkeys) can be a source of human Salmonella infections.

- ** Salmonella germs can cause a diarrheal illness in people that can be mild, severe, or even life threatening.
- ** Chicks, ducklings, and other live poultry can carry Salmonella germs and still appear healthy and clean.
- ** Salmonella germs are shed in their droppings and can easily contaminate their bodies and anything in areas where birds live and roam.

Protect Yourself and Your Family from

The Chicken Whisperer – Facebook Page

https://www.facebook.com/#/thechickenwhisperer?fref=ts

facebook Search for people, places and things


The Chicken Whisperer Timeline Now

Bonnie Jean Moore LaPier I can't wait till ge rid of this stupid dial-up so I can tune in to listen!!! They said by August!!! Yeah, I can't wait!!!!!!!!!!!!!! 😊
May 4 at 9:59pm · Like

Write a comment...

The Chicken Whisperer shared a link.
May 3

As the National Spokesperson for the USDA-APHIS Bio-Security for Birds Program, I was informed by my contact at the CDC that there is currently another outbreak of salmonella linked to live poultry. They are actively checking the DNA of the... See More

 **Salmonella | Infections Linked to Live Poultry | Apr, 2013 | CDC**
www.cdc.gov
Multistate Outbreak of Salmonella Infections Linked to Live Poultry

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25 people like this.

Linda Krueger Moore Where is the outbreak?
May 3 at 10:23am · Like · 6

Becky White Ballard yes what are the locations ? Do you know?
May 7 at 7:50pm · Like

Write a comment...

The Chicken Whisperer
May 2

Kidneys Urine and Salt Excretion in Birds is today's topic with

Write a comment...

The Chicken Whisperer
May 3

DO YOU FEEL LUCKY? Today, I will be announcing the winner of the April Chicken Coop Contest sponsored by My Pet Chicken! I will attempt to call the winner "LIVE" on my radio show today. (No, you do not have to listen live or be available to win.) I will also post the winner here on my facebook fan page after the broadcast. Good luck to everyone that entered!

Like · Comment · Share

45 people like this.

View 16 more comments

Tina McElhattan Very happy for the winner! Sounds like perfect timing and a good start for this family moving to the country. And made in the USA, sweet!
May 3 at 12:31pm via mobile · Like

Taylor Vlahos call me maybe?
May 3 at 3:36pm via mobile · Like · 2

Write a comment...

The Chicken Whisperer
May 2

APRIL CHICKEN COOP CONTEST - FINAL STEPS! Now that you have collected all 30 secret passwords, and have figured out the secret message contained within the 30 secret passwords, send an e-mail to, contest@chickenwhisperer.net with your name, shipping address, and phone number, and of course the 30 secret passwords and secret message contained within the secret passwords. You have until 11:59pm EST tonight (Thursday) to

Conclusions

- ❑ Human *Salmonella* infections associated with live poultry contact are an important public health problem
 - Serious human illness, hospitalizations, and death
 - Young children, people with weakened immune systems and seniors are at higher risk for serious illness
- ❑ Mail-order hatcheries, feed stores, and venues that sell or display poultry, and consumers are all involved in prevention
- ❑ Educational posters should be distributed widely
- ❑ Human illnesses can be reduced using interventions customized at the mail-order hatchery level
- ❑ US *Salmonella* Monitored Program will be of critical importance by allowing mail-order hatcheries to practice a defined program for the prevention and control of *Salmonella*

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Acknowledgments



State and local public health agencies

State Departments of Agriculture

Mail-order hatchery owners

USDA-APHIS

USDA-NPIP

CDC: Outbreak Investigation Teams, PulseNet, ORPB, EDLB

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the views of the CDC.